

N<sup>o</sup> 11,720



A.D. 1898

*Date of Application, 24th May, 1898*

*Complete Specification Left, 24th Feb., 1899—Accepted, 8th Apr., 1899*

PROVISIONAL SPECIFICATION.

**Improved Means for Producing Raised Characters in the "Braille"  
System of Writing and Reading for the Blind.**

I, SARAH ANN THOMPSON, of 75, Ash Grove, Wavertree, Liverpool, in the County of Lancaster, do hereby declare the nature of my said invention to be as follows:—

5 My invention has for its object to enable the "Braille" system of writing and reading for the blind to be adopted for teaching arithmetic, or book-keeping which is at present a difficult operation and is not attended with success owing to the figures or sums requiring to be formed from right to left in writing and the paper requiring to be reversed for reading.

10 The object of my invention is to enable the figures to be formed from left to right, and be read upon the same side of the sheet, as in ordinary writing and to that end I employ a frame and guide more or less of the usual construction but instead of the guide being formed with small "pits" or indents I form it with small projections similar to an ordinary brass pin head. These projections lie in the same order as the "pits" heretofore used and correspond to the openings  
15 in the frame.

In lieu of the usual style or presser I employ a style with a slight indent in its point or extremity, corresponding to one of the projections on the guide and with its edge carefully rounded to prevent cutting.

20 In proceeding to form figures, the paper is fixed between the guide and frame in the usual way. The "style" with counter-sunk, or cupped point is then pressed upon the paper at the point desired, and the end of the style caused to fit on to one of the projections beneath, whereon, by pressure being applied, the paper is given an embossed effect, and the desired figure produced.

25 In such way the figures can be made from left to right, and can be read from left to right with the consequent advantage in calculations.

Although more particularly useful for arithmetic, I may adopt my invention for ordinary writing.

30 The projections on the guide may be produced by small round headed stapled pinned into the plate from front or back, or by a moulding, stamping or machine operation.

Dated this 23rd day of May 1898.

SARAH ANN THOMPSON,  
By John G. Wilson & Co.,  
Agents.

[Price 8d.]



*Producing Raised Characters in the "Braille" System of Writing, &c., for the Blind.*

COMPLETE SPECIFICATION.

Improved Means for Producing Raised Characters in the "Braille" System of Writing and Reading for the Blind.

I, SARAH ANN THOMPSON, late of 75, Ash Grove, Wavertree, Liverpool, and now of 25 Chatsworth Avenue, Walton, Liverpool, in the County of Lancaster, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement;—

My invention has for its object to enable the "Braille" system of writing and reading for the blind to be adapted for teaching arithmetic, or book-keeping, which is at present a difficult operation and is not attended with success owing to the figures or sums requiring to be formed from right to left in writing, and the paper requiring to be reversed for reading. The object of my invention is to enable the figures to be formed from left to right, and be read upon the same side of the sheet as in ordinary writing, and to that end I employ a frame and guide more or less of the usual construction but instead of the guide being formed with small "pits" or indents I form it with small projections or protuberances. These projections lie in the same order as the "pits" heretofore used, and correspond to the openings in the frame.

In lieu of the usual "style" or presser I employ a "style" with a slight indent in its point or extremity, corresponding to one of the projections on the guide with its edges carefully rounded to prevent cutting.

In proceeding to form figures, the paper is fixed between the guide and frame in the usual way. The "style" with countersunk or cupped point is then pressed upon the paper at the point desired, and the end of the "style" caused to fit on to one of the projections beneath, when, by pressure being applied, the paper is given an embossed effect, and the desired figure produced.

In such way the figures can be made from left to right, and can be read from left to right, with the consequent advantages in calculation.

The accompanying sheet of drawings illustrate the manner in which my invention is carried into effect.

Fig. 1 is a part plan of an ordinary board used in the "Braille" system with the chief part of my improved "Braille" character forming apparatus (partly in full and partly in dotted lines) applied thereto.

Fig. 2 is a side elevation and Fig. 3 a cross section of such board and apparatus.

Fig. 4 illustrates the appliance or tool used with and forming the counter-part of the apparatus.

In accordance with my invention I employ a guide formed in two parts (A) and (A<sup>x</sup>) hinged at (B). The part (A) rests upon the board (C) commonly used with "Braille" writing apparatus, and is located thereon by pegs (D) (shewn dotted) taking into holes (E) suitably spaced in the board (C) as illustrated. Upon the face of part (A<sup>x</sup>) I form or provide groups of small protuberances (F), arranged in keeping with the "pits" or indentations heretofore used in this class of apparatus, and in the part (A) I form or provide openings (G) adapted to come opposite and surround the protuberances (F) when the part (A) is lowered on to the part (A<sup>x</sup>).

In conjunction with this improved apparatus I use the style or appliance shewn in Fig. 4, which has a hollow tip or point, producing a cavity (H), and the edges of such cavity are rounded off to avoid sharpness.



*Producing Raised Characters in the "Braille" System of Writing, &c., for the Blind.*

In using the apparatus the paper to be printed upon is placed between parts (A) and (A<sup>x</sup>) of the guide, and its top edge clamped in the ordinary way by hinged flap (J).

5 The point of the style is then placed into one or other of the openings (G) and according to the character to be formed such point is caused to lie over one or other of the protuberances beneath the paper, the selection or distinguishing of which is aided, partly by tuition, and partly by the edge of each opening (G) being formed with a wavy outline as shewn in Fig. 1, which tends to direct the point of the style to one or other of the protuberances on the plate. Pressure  
10 being then applied the concavous formation of the style serves to raise a mound or protuberance corresponding to the protuberance on the part (A<sup>x</sup>) of the guide, and upon the upper face of the paper, instead of upon the lower face as heretofore, and therefore enabling the formation of the characters to proceed from left to right, instead of from right to left. Moreover, the characters can be read  
15 without removing the paper, and thus in arithmetic enable same to be readily set out and calculated.

While affording special advantages for arithmetic my invention is considerably advantageous for writing purposes.

20 The projections on the guide may be produced by a moulding stamping, or machine operation.

Having thus particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

25 1:—"Braille" characters formed from left to right, substantially in the manner herein set forth.

2:—In "Braille" character writing or forming apparatus, a guide comprised of two parts, one part with protuberances, and the other part with openings, in combination with a "style" or tool with hollow tip, as herein set forth.

Dated this 23rd day of February 1899.

30 SARAH ANN THOMPSON,  
By John G. Wilson & Co.,  
Agents.

Redhill: Printed for Her Majesty's Stationery Office, by Malcomson & Co., Ltd.—1899







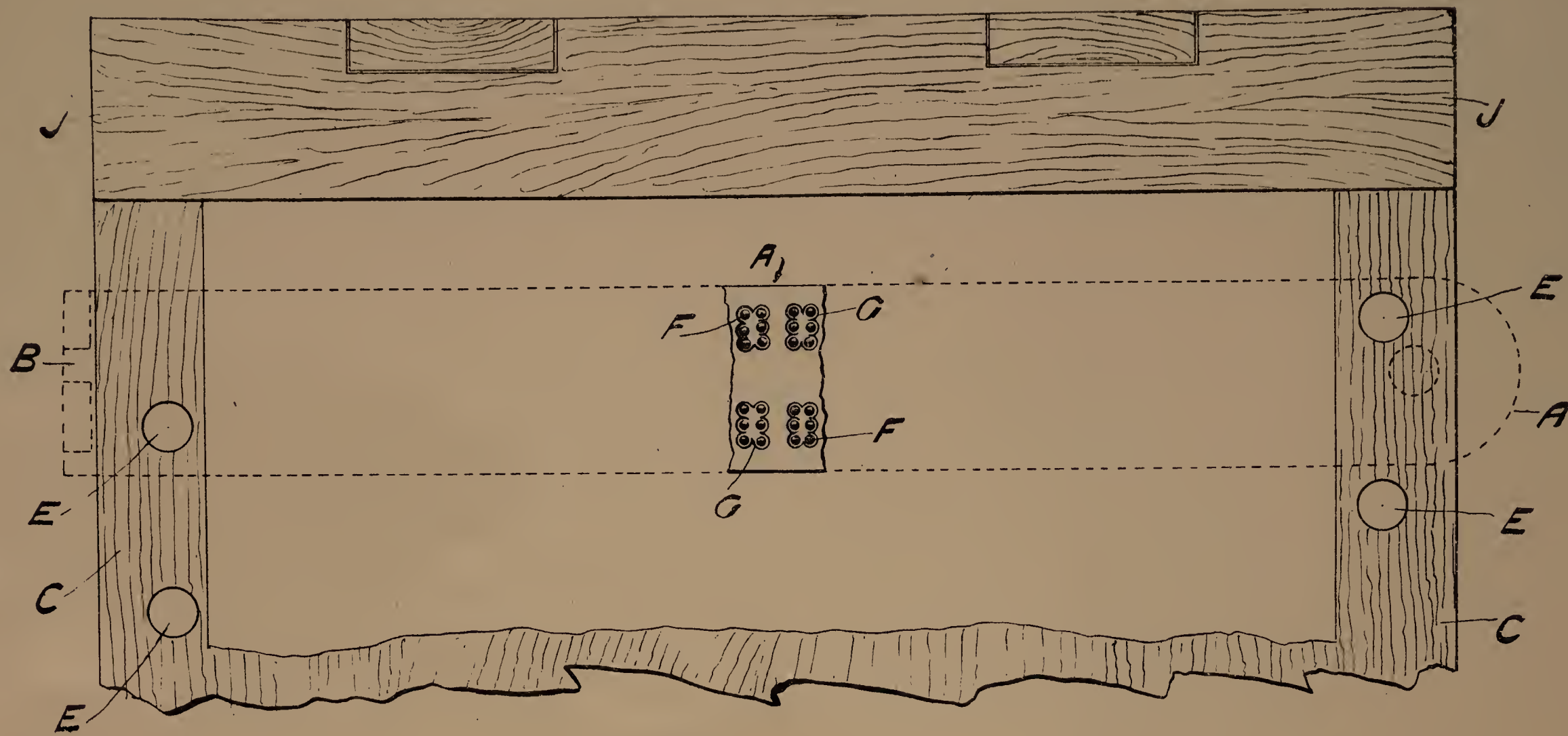


FIG. 1.

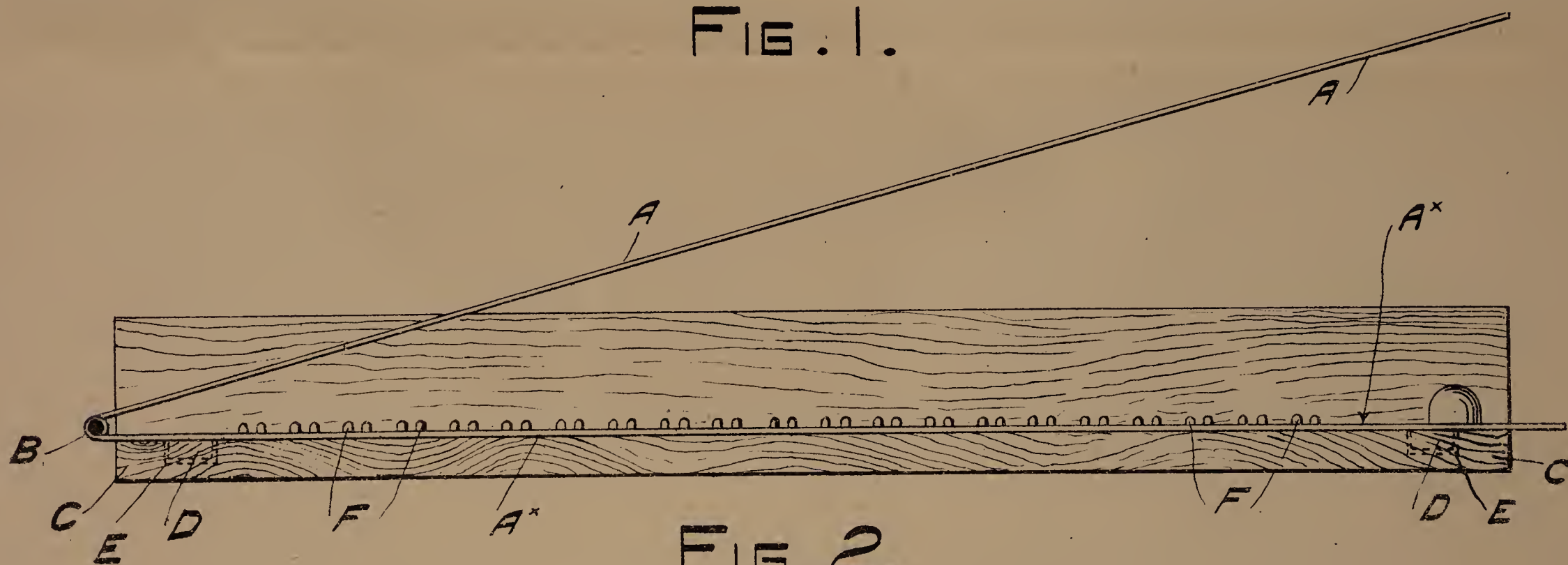


FIG. 2.

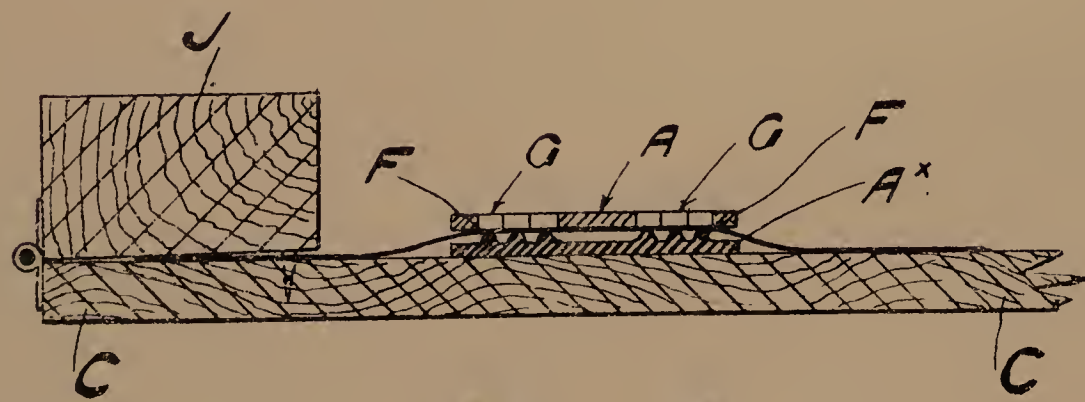


FIG. 3.

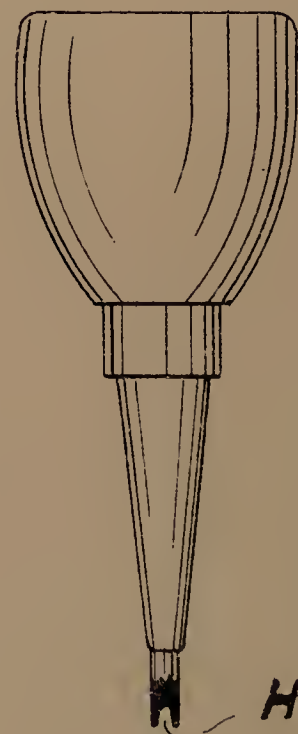


FIG. 4.

